

# THE WATER CYCLE

A photograph of a glacier flowing through a mountain valley. The glacier is a mix of white and blue ice, with some brown sediment visible. The surrounding mountains are dark and rugged, with some snow patches. The sky is overcast and grey.

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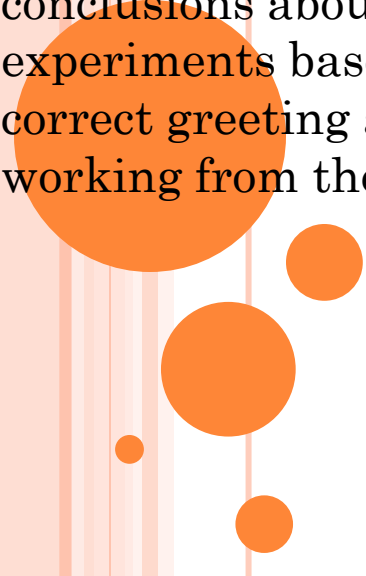
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# INTRODUCTION

This Unit is designed for pupils between ages 9 and 10, this means children in the fourth level.

This unit is created from the Sciences Area.

Children will be able to understand and explain to the class the conclusions about states of water and water cycle through experiments based on discovery learning. Also they perform the correct greeting and farewell time in each sessions. We will start working from the previous knowledge.



# TIMING

- This unit is divided in five sessions, which are taking place during the month of May.



# PREVIOUS KNOWLEDGE

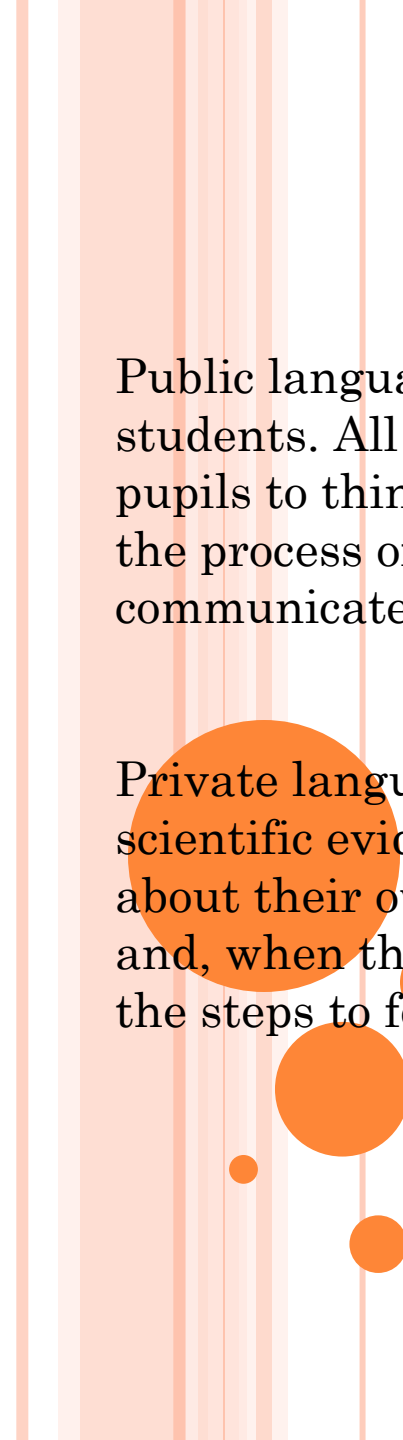
- Days of the week
- The date
- The weather
- The environment



# LANGUAGE (PART 1)

Public language: the teacher is going to make questions to the students. All of them are related to the unit and they serve to pupils to think what they are looking for with this unit and guide the process of learning. Moreover, the language that pupils use to communicate with the others is public language too.

Private language: the students have to get conclusions based on scientific evidence with the experiments and they have to take notes about their own learning. They have to register the dates they get and, when they realize all the experiments, they have to know all the steps to follow.



# LANGUAGE (PART 2)

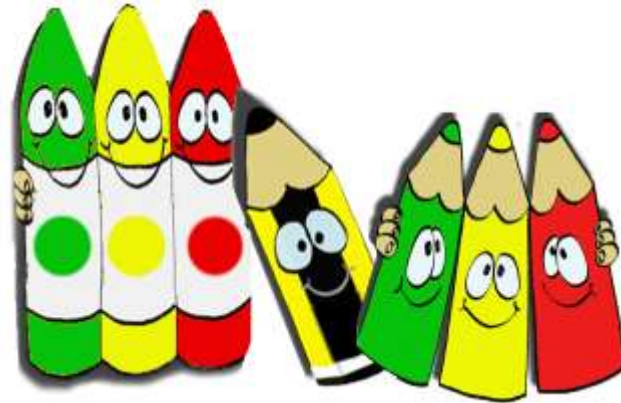
- Non verbal language: we are going to use some illustrators, for example in the songs or when pupils tell to the other their conclusions to show better what they conclude about this unit, and mediators, it is important to support the oral language in the materials we are going to use to work in this unit ,to improve our verbal language. Affect displayers help us and pupils to express better what e say and support our oral language. We have to take into account we must keep the eye contact to observe pupils are understanding or participating in the activities of this unit.



# RESOURCES

## **Experiments:**

- hammer
- some containers
- fridge
- Water
- A thick nail
- A wide cork
- A bottle
- Ice



## **To take notes:**

- 
- self assessment sheet
- paper
- pencil
- stickers
- files (the teacher gives one to each pupil if it is necessary)

## **Another resources:**

- Camera



## 3 LEVELS OF ATTAINMENT/EXPECTATIONS IN THE STUDENTS OUTCOMES (PART 1)

- when we finish this unit our pupils will be able to:
- All children must be able to:
- Take notes relatives to the unit, for example in the brainstorming.
- Register the general conclusions of the group
- Observe the experiments and know what steps they have to follow in each case





# 3 LEVELS OF ATTAINMENT/EXPECTATIONS IN THE STUDENTS OUTCOMES (PART 2)

## **Most of the children will be able to:**

- Participate actively in the different sessions, giving some ideas
- Participate actively making the different experiments
- Take notes about what they observe
- Tell to another partners basic information about the conclusions they have got about this unit

## **Some of the children could:**

- Register conclusions about the different experiments, in group or individually
- Give ideas by using deductions
- Participate in the experiments and get conclusions of each them
- Tell to another partners what they have observed and their conclusions





# INFLUENCING THEORIES



**Vygotsky's theories:** Scaffolding, ZPD, Shared activities, Social, Public and Private Language.

**Gardner's multiple intelligences theory:** proposes seven (eight) different intelligences to account for a broader range of human potential in children and adults.

**Bruner:** In the interaction between child and adults around her, learning interacting.

**Chomsky:** Children do not simply copy the language that they hear around them. They deduce rules from it.

**\*by experimenting making the experiments proposed not only by answering to all the questions the teacher sets.**

# CAPACITIES TO DEVELOP

- Make predictions. (This point will be one of our priorities to develop, I mean that we want them to develop their analyse and guessing skills the most as possible when we ask them mainly to perform an activity...)
- Identify their own roles and the others ones. (This will be basic due to develop the intended projects, kids in groups will have to divide their responsibilities to have a common result)
- Cooperation (Due to develop the experiments, and to help classmates when having troubles or any doubts, we want them to have a citizen attitude as posible...)
- Respect turns. (Due to develop a proper enviroment in class and a work development we will try to make them aware of this as a class rule)
- Understand what they listen and read. (Due to make them more independant and have a less devendant from the teacher when solving any task, this also develops iniciative attitudes)




# STRATEGIES IN USE (TEACHING)

- Teachers will use mainly a methodology due to give our students a good acquiring and learning process:
  - Clear Understanding
  - Constructivist perspective
- We will consider every student's diversity due to help them to acquire what it is pretended in our Units (pupils' status).



# BASIC COMPETENCIES (PART 1)

- Basic Competencies are the essential knowledge and skills acquired by students in relation to the learning targets and objectives set out in the curriculum for each key stage. The Basic Competencies represent just part of the curriculum requirement.
  - Linguistic competences: By being able to define and explain the different ways we can find water, to document and interpret the observations, form conclusions and identify the different materials.
  - Mathematic competences: The information, like the boiling point, is given through a series of numbered steps that will be provided.
  - Knowledge and interaction with the physical world competence: Discover and understand: the water cycle, the different states of the water (solid, liquid and vapor) and the different natural physical processes (evaporation, condensation, precipitation), through experimenting and estimating, and relating these conclusions with every day life.
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# BASIC COMPETENCIES (PART 2)

- Information processing and digital competence: Learning how to follow steps in order to do the experiments. Complete and expand conclusions with information from the internet or books and personal homework. Turn observations and conclusions into knowledge.
- Social and civic competence: Be aware of water shortage and contamination and the role humans play in these water problems. Acquire environmentally friendly habits.
- Learning to learn and to be competence: Learning how to assimilate daily and theoretic facts, conclusions and informations discussing, estimating and processing. Acquire environmentally friendly habits that make them a responsible citizen.
- Personal autonomy and initiative competence: In the autonomy, implication and determination of the activities and ecological consciousness.



# JUNIOR EUROPEAN LANGUAGE PORTFOLIO (PART 1)

- I can understand the teacher's instructions.
- I can sing a song.
- I can read a short instructional text.
- I can write conclusion.



# JUNIOR EUROPEAN LANGUAGE PORTFOLIO (PART 2)

- I can understand the main point(s) from a short spoken passage.
- I can answer simple questions and give basic information.
- I can ask and answer simple questions and talk about the water.
- I can give a short prepared talk about water including expressing my opinions and conclusion





# OBJECTIVES FROM THE "CASTILLE & LEÓN " OFFICIAL CURRICULUM (PART 1)

- Acquire and use correctly orally and in writing the specific vocabulary of the water cycle and the states of water to allow the development of reading comprehension.
- Acquire and develop social skills that facilitate participation in group activities, behaving in a responsible, constructive and supportive way, and respecting the basic principles of democracy.



# OBJECTIVES FROM THE "CASTILLE & LEÓN " OFFICIAL CURRICULUM (PART 2)

- Analyze some forms of human intervention in pollution and waste of water, getting into good habits about water.
- Identify, consider and resolve questions and problems related to important elements of the environment, using search strategies and information processing, making conjectures and testing them.





THANKS FOR  
YOUR  
ATTENTION!

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